

Control – An Attempt at Forming a Theory

Torben Beck Jørgensen, University of Copenhagen
Bøje Larsen, Consultant, Copenhagen

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Let us take an example. The conventional version of the concept of 'control' has ruled the politico-administrative debate of the 1970s. 'Control' in this sense entered the public arena in Denmark around 1970 when the growth of public expenditures was defined as a problem: the growth was too rapid; the development of the public budgets could not be managed. To an increasing extent these worries characterized the debates on fiscal policy. The expenditure totals and the total consequences of many – perhaps separately correct – decisions in the individual sectors were brought into focus. More total planning and control were needed to avoid the soaring flight of the expenditures.

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It was, among others, Per Haekkerup who as newly appointed Minister for Economic Affairs introduced control to the Danish parliamentary debate on public expenditure in 1972–73. He used words indicating rather direct central control. The same preoccupation with direct central control can be seen in the so-called ‘Perspective Planning Report II’ from 1973.

It was the ‘Haekkerup-variant’ of the concept that ‘won’. In the 1970s’ debate, control became associated with superordinate planning, direct intervention, coordination, deliberate policies, etc., well assisted by the 1968-generation’s wish to plan society and control the private sector (legitimizing, for example, the establishment of the Ministry of Environmental Affairs), the researchers’ interest in planning and control, and the entry of new administrative forms of education. By definition, activities that were not centrally controlled were therefore regarded as uncontrolled, casual, un-coordinated (i.e., altogether unacceptable). Differences, variety, richness of variation in practices, rules and behaviour of public organizations (positive values in an ecological perspective) were seen as something negative in a bureaucratic system where it causes information problems.

The pressure for economy and cuts has presumably forced this understanding of control down into the individual politico-administrative sectors and out into the municipalities (quite contrary to the decentralization attempts in the 1970s). The decentralization can also be seen as an attempt to create free capacity in central units which can be used for general control and planning.

In recent years, however, a reaction against the conventional definition of control has occurred – partly in the general and political debate where liberalism has gained a new ideological foothold along with the ideological stagnation of social democracy, and partly in the specialist literature within organization theory and political science, where a veritable ‘ungovernability literature’ became dominant. According to this literature it is difficult, not to say impossible, to control social systems (centrally).

That things are not controlled centrally does not imply that control does not take place. There are other forms of control. Thus, the definition of control becomes rather comprehensive and almost identical with the concepts of power or influence. It is the theoretical ambition of this paper to classify, examine, and discuss various forms of control. The practical aim is – as indicated above – to make clear that there *are* forms of control other than the centralized one. Even where social problems are seen at macro level – as is the case with the steeply increasing deficit of government expenditures – we do not feel convinced that ‘lack of (central) control’ is the correct diagnosis and that ‘improved (central) control’ is the correct cure.

A Broader Control Concept

Control and Changed Behaviour

The broader concept of control which we use in the following can be more precisely defined as *social influence leading to changed behaviour*. The expression 'leading to changed behaviour' implies two prerequisites. First of all, it is assumed that the behaviour actually could be different from what it has become. Thus control presupposes degrees of freedom in the social system. Secondly, it is assumed that 'influence' actually changes behaviour, that a cause and effect relation actually is present. Without the 'influence' the 'behaviour' would have been different. Thus, it is not control to go down into the street and shout to the cars to 'keep right' – they would have done so in any case. The expression 'social influence' signals that we limit ourselves to influence exerted by people on others. In this way individual self-control or lack of same is cut away, and so are 'spontaneous actions' such as coughing or scratching one's back, hereditary factors as well as other 'natural' limitations within ourselves or in our surroundings. But more than this is cut away, as we follow Max Weber's definition of 'social actions' (1972, 1) so that by such we understand actions about which the acting person concerned is aware of how they will affect others and maybe even plan the action accordingly. If the recollection of the last meeting I attended makes me shake my head while travelling by bus, it is not a social action. I do not attach any meaning to it in relation to my fellow passengers. And if my fellow passengers are influenced by it (move away, behave nicely), it is still not control. But if I shake my head at a fellow passenger who sings, and this makes him stop, then it is control (an example of what is below called collective control).

The complete field of what we call 'control' can be divided into five main forms, which – as far as we can see – in broad outline exhaust the possibilities, although there is of course a number of other ways in which to divide up the various kinds of control. We call them *bureaucracy*, *market*, *democracy*, *collective* (norms), and *knowledge* (dialogue).

How to Mount a Bus

The five control systems can be seen as five ways in which to regulate how people mount a bus. In the case of *bureaucracy* the bus company has stationed an inspector at each bus stop, who within the scope of his authority and on the basis of regulations and/or after an 'objective' analysis points out who is to get on the bus and in what order. If the situation is sufficiently unambiguous and the potential passengers sufficiently obedient, all the inspector has to do is to hang his regulations on the bus stop post. In the case of *market* the waiting passengers compete for/bargain over the different places in the queue, e.g., by bidding an amount for the various

positions. The highest bidder gets on first. You pay in real money or in other scarce goods, but you can also compete on muscular strength. The case of *democracy* exists, e.g., when the waiting passengers make proposals to various joint solutions to the problem of order and which are then put to a vote. In the case of *collective*, the mounting is regulated by mutual norms, e.g., 'first come, first served', special rights for sick people, etc. In the case of *knowledge* (dialogue) those present solve the mounting problem by examining the problems and arguing with each other about the best solution, perhaps until complete agreement has been reached.

The five systems can also be characterized as five *methods to solve conflicts* in order to decide whose interests among the waiting persons should prevail. In practical bus mounting situations collective (queue culture) is decisive, which proves, what is amazing for people who think about control in the conventional way, that we actually can mount a bus without having people wearing caps to assist us. As in all social situations there are traces, however, of the other control systems: When the bus comes there is in fact an authoritative person (the driver) who can regulate (control) the situation, just as market and knowledge play a part in situations where the norms of the queue culture run out.

The following incident occurred on a Copenhagen bus one hot day in June at about 5 p.m. A man enters the bus carrying a dog in his arms. The bus driver turns him away referring to the regulations saying that dogs have to be carried in bags (bureaucracy). The man tries to convince the driver that it is *too* bureaucratic – after all, just the one trip and, anyway, he did not know the rule. Thus the man appeals to informal norms (collective) about not being too pedantic. The driver maintains his stand on the regulations. The man then asks a passenger carrying a record in a bag whether he can have the bag, thus appealing to his solidarity (collective). He gets it and struggles for some time pressing the dog into the bag, but without success. The man then states the consequence it will have for him not getting on the bus (knowledge). The driver is relentless. If the man now had offered the driver extra money we would have had an example of market (and from the bus company's point of view an attempt at corruption). What then happens is, however, that an impatient passenger on the back seat shouts: 'Damn it all, this is collective traffic. Let us vote on it and get on' (democracy). The driver again refers to the regulations and asks the man to leave.

Thus, the problem is settled by bureaucracy – but presumably supported by the general feeling that it is time to get on (a norm that there are limits as to how long the man can waste the other passengers' time, i.e. collective). The example also shows that the individual system can be seen as offering possibilities for action. The man with the dog thus tries his way with the various systems trying to find one giving the result wanted.

In the bus example the five control systems have so far been used to describe the way in which control takes place in the social system made up of passengers or rather would-be passengers. But they can also be used to describe the relations *between* this social system and its surroundings. The queue can be connected to the social environment by 'bureaucracy' because that system might have been used to create the situation, e.g., as to how many bus stops there are, or that an inspector is to handle the situation. The queue is also connected to the surrounding world via 'market', e.g., in that people who have to wait too long choose other means of transportation. 'Collective' plays a part in the sense that queuing is not a local norm in this very group, but is a general norm in society, etc.

In the next section these five systems will be described in detail, their mode of operation will be examined, and differences and similarities between them on different dimensions will be analysed. But first we shall briefly mention the various ancestors, as well as the inspiration, we have had in working out these control systems.

Intellectual Ancestors

The inspiration for the first three concepts (bureaucracy, market, and democracy) and on the whole for the way in which the control systems are analysed comes from Hernes (1978). The inspiration for the latter two systems (collective and knowledge) comes from conversations with two of our colleagues, Flemming Agersnap and Olaf Rieper. Otherwise, we can refer to the traditional social science interest in markets and bureaucracies. References should of course be made to the classic discussions by Adam Smith and Max Weber and the innumerable scientists who have followed in their footsteps. Quite a few scientists have discussed the two control systems and their relationship. We can at least refer to Dahl and Lindblom (1953), Lindblom (1965, 1977), Williamson (1975), and J. K. Galbraith (1973).

There is also the obvious distinction between central and decentral control (partly parallel to bureaucracy and market), see, e.g. Lehman (1969), Rhenman (1975), and the research on inter-organizational relations (Beck Jørgensen 1977). The discussion on democracy has – apart from Hernes (1978) – been kept alive by Habermas (1962), and his idea 'control-free communication' (1968) has served as a model for our concept of 'knowledge'. The discussion of collective (norms) has of course distinct parallels to the sociological literature on social norms and social control. Generally there are also traces of Etzioni (1961) and his classification of organizations according to the types of sanctions they use. The two concepts 'collective' and 'knowledge' have been added to Hernes' concepts partly to describe what the modern industrial society for long periods has moved away from (from collective and knowledge towards market, democracy

and bureaucracy – from *Gemeinschaft* towards *Gesellschaft*), partly to capture some of the ‘retrograde motions’ towards collective and knowledge within, e.g., the civil service (in the shape of professionalization and use of research).

The Five Control Systems

Bureaucracy

The influence which is exerted when *formal superiors send binding directives to subordinates about their behaviour* is what is understood by bureaucracy. Control is performed by means of hierarchy. In their form ‘binding directives’ range from written reports (circulars, rules in writing, and written plans) to more oral and soft messages. The crucial point is in any case that they originate in a formal authority and are not supposed to be discussed. The intended way of control is one-way, from above and downwards. Characteristically, those who do not comply with the commands will be subjected to sanctions of a ‘legal’ type, e.g., imprisonment, physical punishment, getting sacked, transfer, reprimand, etc., but utilitarian forms of sanctions such as fines are also used.

Markets

Situations in which a large *number of actors compete for scarce goods* is what is understood by market. The actors are divided into two groups – in some situations called ‘sellers’ and ‘buyers’ – who exchange in individual (bilateral) relations. The actors can be individuals or organizations (public or private). The aim is to get the ‘goods’ or the lowest possible ‘pay’. Market is a control system without a localized authority. Everybody – both seller and buyer – is controlled by the market and the possibilities it offers. And everybody can – except for the situation ‘perfect competition’ – influence the market by offering new possibilities, e.g., new products. In this sense it is a two-way system. In principle it is also an *equal system*. This also applies to the individual transactions which can be characterized as being based on free contract. The special sanctions in this system against an actor who does not comply with the control are ‘loss of utility’ (utilitarian sanctions). If you do not get an optimum price in the market, you are punished, not by any special authority but by not getting as much out of it as you could otherwise have got. The concept of market, as defined here, covers first and foremost markets for goods and services where the payment is money. But market is more than that. In the public sector it also covers, e.g., the competition between and within institutions and branches of the administration for clients, tasks, labour, and grants.

Democracy

Democracy is characterized by voting, either when electing persons (man-

agers, representatives) or when making attitudes to proposals known. The voting does not have to be formally organized or identified as such. It is democracy as long as there is a *common opinion* (contrary to the situation in markets, where the goods are so divisible that the decision of the individual only binds individually) which is aimed upwards towards the managers or towards the arrangement of common matters (contrary to collective, where the opinion, the norm, is aimed at the individual ordinary member). Thus the intended direction of the control is *from below and upward* or *from all towards all*. In the case of leaders not complying with the control, the sanctions are *opposition or no support*. For equals who do not comply with the control, the sanctions are primarily *normative* (social labelling such as being declared disloyal). Examples of democracy are primarily seen in political systems, parties, interest groups, etc. Democracy also plays a part within other organizations, both formally and informally, as expectations and demands from the lower level member must always to some degree be taken into account by the top.

Collective

Norms and values common to or at least directed at all participants are central in this system. These norms and values can also be characterized as a collective opinion concerning the participants' behaviour. The members themselves are influencing this opinion, but it makes demands on the individual. The individual sends as well as receives norms. In principle there is no official management, and the participants are on equal terms. The direction of control is from 'all towards all'. A typical sanction within collective systems for participants who do not comply with the control (opinion) is some degree of exclusion from the group. Other types of sanctions are *normative*: Deviates are 'blamed', stamped as being disloyal, etc.

It can be argued that collective control can be seen both in a strong and a weak variant. The strong variant is based on *internalized norms*, i.e., norms which the individual has adopted, accepted as his/her own. Deviation from such norms not only causes 'outer' sanctions, but also 'inner' sanctions in the form of bad conscience, self-reproach, or discontent with oneself. The weak variant is solely based on outer sanctions. The individual person waiting for the bus may not accept the norms of queuing, but still complies with them in order to avoid being reproached by the other people in the queue. Here we see a feature common with bureaucracy which also can be said to be based on norms (the binding directives). Deviations will here also cause outer sanctions. The differences between the weak variant of collective and bureaucracy relate to who may act as a sender (in collective all can send, in bureaucracy only the formal management) and the question whether the relations are one-way (bureaucracy) or two-way (collective).

Only the strong variant will be included under collective, partly for practical/pedagogic reasons, partly because of the weak variant's similarity to bureaucracy. Even in an informal social system, strong status differences between the actors may develop with an actual hierarchy made up of norm senders and receivers. Examples of social systems characterized by collective are families, work-groups, groups of employees in certain departments and professionalized groups in which special norms bind together across places of employment. Also in organizations as a whole and in society collective plays a part in the form of common norms and values, that is, culture. Especially in recent organization and management theory organizations have come to be seen as controlled by culture.

Knowledge (Dialogue)

Knowledge understood as *stock* forms part of all the above mentioned systems of control. Bureaucracy presupposes that those at the top know the consequences of different actions. Market presupposes knowledge about various possibilities and their cost. The accumulation of knowledge – knowledge understood as a *process*, as a 'flow' – can, however, be understood as an independent form of control. *We change behaviour, when we become wiser*. We can become wiser in several ways, through 'dialogue' with 'reality', i.e., through experiments, exploration and investigation and – what is central here where we define control as social influence – through dialogue with others in the form of discussion, exchange of experience, and criticism. Where the individual, in a system controlled by collective, can be said to be *persuaded* to comply with the norms, it can be said that in a system based on knowledge the individual is voluntarily *convinced* by 'facts' or 'arguments'. The decisive point is not whether these facts or arguments are 'true' in the sense that they represent a definitive and correct picture of reality. The decisive point is that the individual is free to critically check the result (knowledge as stock) as well as the methods (knowledge as a flow).

Thus knowledge as a form of control is defined as a system based on equality. The system is also based on very limited use of sanctions as regards the actor who does not comply with the offered arguments and knowledge. The nearest it comes to sanctions is that the deviates may be regarded as untrustworthy or silly.

Knowledge as a form of control plays a part not only in research and teaching situations, but everywhere where complicated tasks require investigation and discussion. Knowledge (dialogue) does not only exist on a micro-level (in research and work groups), but also on a macro-level as part of a more or less well-functioning public debate at the organizational and societal level. As the collective system it contributes to modify the actors' bases of action through the other systems.

Knowledge as a flow is by definition free of sanctions. This does not apply to knowledge as stock. On the contrary, knowledge can be unequally distributed and thus a power base in itself. The wise guy can cheat the less wise guy, for example through market, or can on the basis of prevailing norms (collective) explain to (teach) the less wise guy how he/she is to behave. Knowledge has also to an increasing extent been connected to public and private bureaucracies, i.e., with other bases of power (technocracy). In the 'back rooms' there is probably a sanction-free communication between the experts, but when the result is available (knowledge as stock) it is based on binding directives to the citizens, the customers, or the clients. In the bus example, the 'modern' solution is that the bus company appoints a group of sociologists, traffic economists, and cost-benefit analysts who through a sanction-free discussion reach the 'correct' solution, which is then passed on to the would-be passengers by a man in uniform. The utopian alternative here is that the experts communicate with the waiting passengers in a free dialogue.

Conclusion

The five forms of control are characterized by their position on a number of dimensions. A summary of the characteristics of the different forms of control in relation to these dimensions is shown in Table 1.

Differences and Similarities between the Control Forms

The five control forms function differently. Nevertheless, there are in some dimensions points of similarity which means that to a certain extent the control forms can be seen and discussed together. In this section two principal groupings will be discussed, namely 'outer' and 'inner' control forms and 'direct' versus 'indirect' ones.

The Outer and Inner Control Forms

Bureaucracy, market and democracy differ much from each other in their substance. We can compare them dimension after dimension and demonstrate gross divergencies. This is not surprising. But nevertheless bureaucracy, market and democracy differ as a joint category from collective and knowledge.

Bureaucracy, market and democracy have a strong resemblance to each other on a constitutional level. All three control forms can be said to form a framework for interaction between pairs of actors (superior/subordinate; seller/buyer; representative/voter). Furthermore, all three control forms assume – as ideal types – that the individual acts out of self-interest. This

Table 1. The Five Control Forms.

Dimension	Bureaucracy	Market	Democracy	Collective	Knowledge
Mode of operation	Superiors send binding directives	Competition for scarce goods	Formulation of opinion from below aimed at the management or at the organization of common matters	Regulation of behaviour by accepted norms	Dialogue making wiser and therefore leading to changed behaviour
Direction of control	from above - downwards	bilateral	from below - upwards, all-all two-way	all-all	all-all
Control-relation	deliberate, direct, visible	automatic, indirect, invisible (the invisible hand)	deliberate, direct, visible	includes not deliberate, indirect	includes not deliberate, indirect
Outer/inner control	outer	outer	outer	inner	inner
Types of sanctions	legal types: coercive sanctions (physical punishment), utilitarian (fines)	utilitarian, loss of benefit (money)	opposition normative sanctions	exclusion, normative sanctions, sense of guilt	no sanctions
Need for information	medium	small	big	irrelevant	big
The role of goals in the control form	superior goals forced on others	no common goals	common goals may be developed	the development of goals	clarification of the consequences of goals
The role of alternatives in the control form	no alternatives (escape roads) exist	presupposes the existence of divisible alternatives	choice between indivisible alternatives (benefits)	delimitation of legitimate alternatives	raises consciousness concerning alternatives, creates alternatives

is in all three cases supposed to add up on the collective level to a general welfare, a general system rationality. This similarity is very clear in Hernes' (1978) presentation of these control forms. The most well known argument for this relation between individual self-interest and collective welfare, is, of course, Adam Smith's concerning markets. There are also similarities in the type of sanctions. In all three control forms, the types of sanctions are outer types in the sense that they are not based on the actor's conviction, but on a pragmatic, utilitarian attitude. It is the outer sanctions that carry these control forms through. When there are no sanctions, when the formal leader (bureaucracy), the trading partner (market), the national popular majority (democracy) are away, there will be no change of behaviour. These important similarities may explain why these three control forms historically have developed more or less concurrently. Thus Weber was very aware of the interaction between the growing capitalism (market) and bureaucracy, and in the same way Habermas has pointed out the connection between capitalism and bourgeois democracy (1962).

Contrary to this, collective and knowledge are inner control forms. In collective and knowledge the point is that the possibilities of action, or the delimitation of action possibilities *are worked out in or by the individual actor*. It is the individual who accepts certain norms or becomes wiser and therefore acts differently that he/she would otherwise have done. Norms and knowledge are internalized. Similarly, the sanctions are inner, e.g., bad conscience and a sense of guilt at not having complied with certain norms, or an unpleasant feeling of 'acting in bad faith'. Finally, collective and knowledge are based on a fundamental norm of equality. There is a free 'all to all' communication as regards the making of norms and the accumulation of knowledge.

Norms and knowledge can only become internalized if they are seen as legitimate. And they are only legitimate if norms have resulted from a free collective discussion, and if the accumulation of knowledge has followed mutually accepted rules – which incidentally everybody is free to change, if he/she can argue favourably and convincingly, if the dialogue is sanction-free.

The inner forms of control therefore also affect the socially isolated individual, who is not being constantly watched by one of the authorities of the outer forms. Consequently, systems and actors who cannot be watched constantly – maybe because the actor is isolated or the task complicated and unpredictable – the missionary, the pilot, the professor – should rather be controlled by the inner control forms than by the outer ones.

But how do the inner control forms work compared to the outer forms? If we look at collective the product of this control form can be said to be very important for bureaucracy, market and democracy in the sense that

probably none of them can function, unless norms and values to a certain extent support them. Market, e.g., functions better if there are norms for proper business behaviour, and bureaucracy if the distance between the legal norms of bureaucracy and the social norms of those being controlled is not too big. In the same way knowledge (as stock) plays an important part for the outer control forms as can be seen in the classic assumption of full knowledge in the market. Furthermore, bureaucracy can derive much benefit from knowledge, e.g., as the basis for the working out of the binding directives.

But when it comes to the making of norms and the production of knowledge the outer and inner control forms are more or less alien to each other. Let us take the production of knowledge as an example. In a market the actors' production and accumulation of knowledge is a competitive strength, and a market actor's accumulation of knowledge requires *concealment*. This is incompatible with the free dialogue in knowledge as an ideal type. Production of knowledge and bureaucracy do not fit very well together either. Concealment is also important in existing bureaucracies. Moreover, the hierarchical structure, the authoritative relations and the possibility of sanctions are incompatible with the free dialogue. With respect to democracy and production of knowledge the situation is more complicated. Among parties in an existing democracy knowledge is, as with the market actors, a competitive strength. On the other hand, a free democratic debate is related to the free dialogue necessary for producing knowledge (Habermas 1962).

Direct and Indirect Forms of Control

Control is not always the result of a direct and deliberate attempt to influence. The five control forms differ characteristically. Market represents one main type. According to a classic economic understanding, the individual actor in the market tries to satisfy *his* requirements and maximize his benefits. This affects the trade partner, who will be supplying the benefit the person in question has bought. This can be called the primary and intended effect. But there are secondary and unintended effects beyond this, e.g., that my demand *generally* raises the price of the demanded good, which will be bad for my 'neighbour-demander' whom I do not know or care for. In this way there are effects which spread anonymously through the market and shape it as a whole. Everybody follows only his own particular interests. Nobody plans the system as a whole, but its macrostructure is determined and orderly ('the invisible hand'). This macrostructure is a resultant which seems to be outside and above the individual actors. The market price becomes non-human, reified.

In that respect both collective and knowledge are similar to market. There is a primary influence relation which is deliberate and visible, the

normative appeal and dialogue in relation to other actors who can be identified. And a secondary influence relation, i.e., the spin-off effect which emanates from the individual transactions and contributes to forming the general reified norms (culture) and the established knowledge. Example: When I suggested to my fellow-passengers that we ought to follow the principle that the person who comes first to the bus stop gets on the bus first, then I affect them directly (primary relation) and I support the general norm that this is how you do it – a norm which also applies to fellow-passengers unknown to me at other bus stops.

This market, collective and knowledge involve a considerable element of indirect and not-deliberate influence, i.e., the control is a resultant rather than a fully planned and intended result. As opposed to this there are bureaucracy and democracy, which to a large extent aim deliberately and directly at definite total conditions. Presumably, it is this characteristic that in conventional control thought makes them ‘proper’ control, while market, collective and knowledge are seen more as a mess, disorder, or coincidence.

Use of Control Forms

Various societies show systematic differences in their use of control forms. The USSR emphasizes bureaucracy more and market less than does the USA. A society shows control differences over a period of time. In nineteenth century Denmark there was more market than in the Catholic Middle Ages, when a number of norms (collective and/or bureaucracy) restricted the market, such as prohibition against usury, norms about ‘just prices’, etc. Today, Denmark shows a different use of control forms depending on what part of society we are talking about. Parts of the production of goods and services are more influenced by market than the public sector, where bureaucracy has a stronger position. In quite a few fields, there is, however, an increasing mixture of control forms.

This leads to the question of what determines the concrete use of control forms or the concrete mix of control forms in certain social institutions or in certain situations? We do not have a final answer, but we want to discuss the perspectives and the determining factors that may be included in an attempt to answer the question.

The Rational Choice of Control Forms

One perspective is to presume that all control forms are not equally suitable in all situations. We reflected on this previously in the discussion of the differences between outer and inner control forms, advancing the thesis that when ‘watching’ is not possible control must be based on the inner forms. The same might as well be said when ‘watching’ is costly. This means

that one criterion for suitability is *economic*. The two forms of coordination, bureaucracy and market, may be considered as inexpensive, but only applicable for simple and predictable jobs (J. R. Galbraith 1973). In the book *Markets and Hierarchies*, Williamson (1975) explicitly takes up the relationship between these two forms. He starts from the concept of transaction costs – the costs incurred in the completion of a transaction in a market. These costs are an expression of how difficult it is to write a clear contract that specifies all contributions and payments. When it is impossible to establish full knowledge and clarity about the goods to be exchanged or the behaviour to be undertaken, when the necessary knowledge is not possessed individually and when the danger of opportunism (i.e., cheating) is big, then the difficulties are staggering. The bigger the transaction costs the more they pull away from market and towards hierarchy, which in Williamson's vocabulary almost equals what we term bureaucracy (though also containing elements of collective and knowledge). Example: If sexual 'services' may be exchanged on a market (in the form of prostitution) while love almost always requires a collective (family or pair relations) it is because the 'services' can be described and delimited in time and content while the latter cannot and requires trust.

Besides the economic analysis one may see the problem in a *conflict* perspective: Knowledge, collective and to a certain extent democracy are only possible in systems and situations characterized by small and not quite fundamental conflicts, while bureaucracy and markets are fit for and intended for conflict situations.

Fight for Control Forms

The bus example above is also well suited to illustrate that the actors can have their reasons for wishing that the mounting problem can be solved by different control forms. Here the individual actor's *interests*, *competence* (abilities) and institutionally defined *avenues of action* play a part.

Institutionally Defined Avenues of Action: In some roles certain ways of control are available while others are not. To the bus driver and the bus company – contrary to the waiting passengers – bureaucracy is directly available. It is not necessary for them to argue their way to a solution, and therefore bureaucracy may seem a suitable form to them. Or the other way round: Often authorities do not take an interest in 'alternative' control forms until they are deprived of their bureaucratic rights. When the actors for these reasons typically have different preferences concerning control form, it is not a question of rational choice, but a fight for control forms.

It is also these circumstances which make, for example, the Danish debate about research planning on a national level so depressingly predictable. The bureaucrats in the Ministry of Education are (amazingly enough) of the

opinion that the research control is to be improved by means of bureaucracy with themselves in control. The bureaucrats in the department for administration in the Ministry of Finance also hope for bureaucracy and also with themselves in control. The bureaucrats in the other ministries, as well as other research users, believe more in market (so-called 'sectoral research', or contract research). The researchers who feel attached to institutions of higher education and universities argue for democracy and institutional self-government, while other researchers think that the control form of informal networks of colleagues – the so-called 'invisible college' (which is a combination of collective and knowledge) – is the only proper form of control.

Interests: While passengers with 'objective properties', particularly if they imply rights, are likely to advocate for bureaucracy, the businessman will probably get a better place in the queue if market is established, because presumably he will be able to pay a higher price (and deduct the cost from his taxes) than, for example, the single mother. The single mother must reject bureaucracy (it does not immediately show on women that they are single and mothers) and market (she has hardly as much money as the businessman). She would (more likely) be in a stronger position if democracy was the prevailing control form.

As the control form applied thus is not neutral as regards the regulation of the mounting, each person may be interested in influencing the others to accept a specific control form.

Competence: This means the actors' various degrees of experience and competence to operate through different ways of control. A classic bureaucrat will with pleasure and skill play the role of bus stop inspector, but will probably feel uncomfortable and inexperienced in having to argue on equal terms with children and pregnant women as an ordinary person in the queue. It will also appear too disorganized and amateurish to him. The busy and dynamic (entrepreneur-oriented) businessman will grow impatient and uncomfortable having to wait in a system with fixed rules, but will happily jump into the market, bargaining over the price and organizing contracts about buying and selling. The passenger with a background in politics will energetically organize the waiting passengers in parties, formulate proposals to put to the vote, etc. (democracy). And the scientist will presumably be able to convince at least himself that a committee should be appointed to discuss the question in depth (knowledge).

The Dynamics of Control

Both the discussion about the rational choice of control form and the fight for control form have implied socially isolated situations limited in time.

But social situations are rarely neither without history nor isolated. In this section we shall take a closer look at the time dimension.

The following discussion is based on the thesis that any control form holds the embryo to its own ruin. It burns out after a time, so to speak. As far as the outer control forms are concerned (bureaucracy, market, and democracy) it is foreseeable that the individual actor will try to disregard the framework for interaction. It is, for example, rational for the individual actor in the market to suspend the market forces by building up product differentiation or image, or by establishing a monopoly. This is what makes Hernes characterize the market as a collective good (Hernes 1978).

At a more general level we presume that those controlled learn to avoid those controlling. On the other hand, those controlling may be corrupted by power over time. Thus we imagine a sequence of events where the character of the interaction between those controlling and those being controlled is changed over time.

Is it easiest to illustrate such change over time when the discussion is limited to only *central* control, e.g., bureaucracy, perhaps linked with (representative) democracy, versus self-governing, e.g. market or collective. The development over time is outlined at various stages. One may think of this as taking place in a society as a whole, in inter-organizational systems, or in organizations (see Table 2 and Fig. 1).

Is it possible to find empirical cases of social systems that have gone through this control cycle in its pure form? It is doubtful, yet many West European countries over some centuries have followed a line of development which is strongly reminiscent of the control cycle. One could perhaps point at the emergence of the mercantilism and the establishment of absolute monarchy (central control in the economic and political sphere – by ‘the Grace of God’ legitimacy was added to central control). Later we see the decay of absolute monarchy with the adjective ‘enlightened’ added as camouflage (corruption of control), liberation movements, and revolutions (anti-control) and the establishment of economic and political liberalism (self-governing).

Especially within the economic sphere one can trace the next step in the control cycle through the restraint of trade by the creation of cartels, monopolies, oligopolies (self-help) followed by the public debate in many countries on the drawbacks of capitalism (control need) and the ensuing antitrust legislation and the establishment of national bureaucracies for control (central control this time legitimated not by ‘the Grace of God’, but by ‘the Will of the People’).

It is obvious that such a sequence only appears if a number of prerequisites are fulfilled, for example, that those under control learn dodging possibilities quicker than those controlling learn to stop the possibilities (the tax legislation and administration seem to be a good example of this). Any

Table 2. The Dynamics of Control.

Stage	Contents	Control subject/object relation
1st stage	<i>The need for control</i> is defined, the necessity of control legitimated.	Identification and isolation of subject
2nd stage	<i>Legitimate control</i> is exercised successfully.	Subject/object separation
3rd stage	The necessary contents and background of the control are forgotten, particularly by those controlling, <i>the control is corrupted</i> .	Beginning opposition between object and subject
4th stage	<i>Anti-control</i> arises gradually, the control prerequisites are eroded, 'underdogs' learn because of adversity. 'Topdogs' also learn because of anti-control, but gradually those controlled learn the quickest.	Manifest adversity between object and subject
5th stage	The central control is removed, <i>self-governing</i> arises.	Object = subject
6th stage	Self-control becomes taking the law into one's own hands, <i>excesses</i> because of lack of adversary.	Subject/object gradually separated
7th stage	Identical with the 1st stage.	

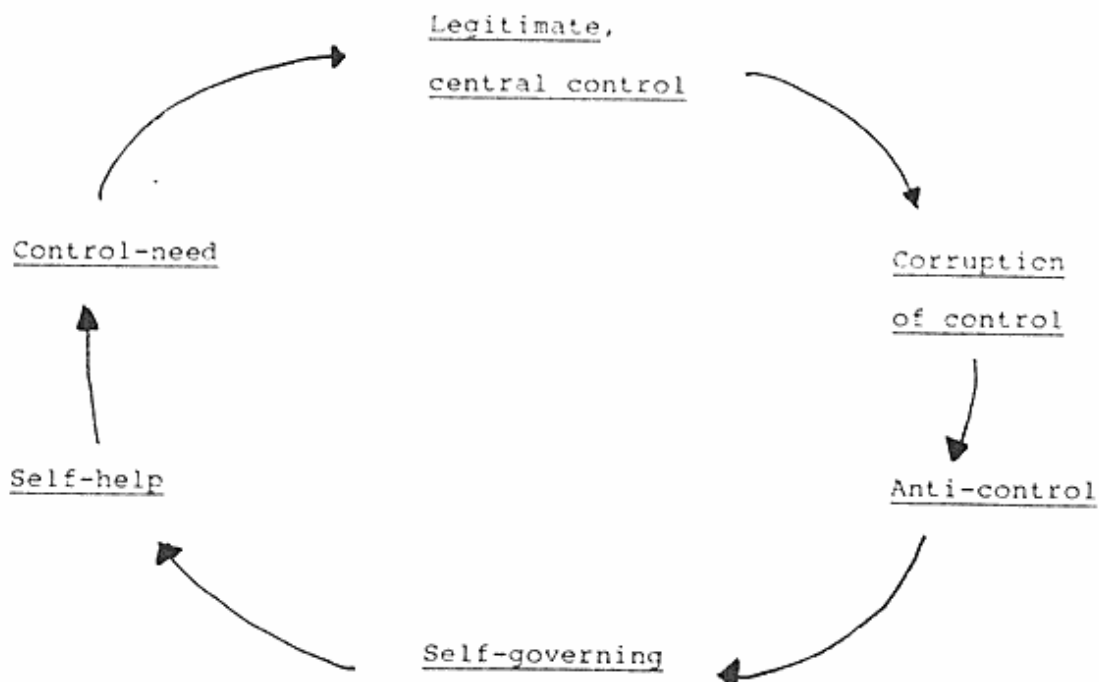


Fig. 1. A Control Cycle.

change from one stage to the next presupposes the existence of particular conditions or that particular critical values have been exceeded.

With this analysis we only want to point to the importance of the time dimension in analysis of the presence and usefulness of different forms of control. First of all the dynamic way of thinking leads us to understand that analysis of the usefulness of certain forms of control cannot be carried out without a knowledge of where in the control cycle the social system under study is located. If it is located on the right side of the control cycle (the corruption or anti-control stage), it is relatively easy to show that central control (most likely) will not function. Yet this statement about central control does not have universal validity since the opposite seems to be true if the social system is located on the left side of the control cycle. Secondly, the dynamic way of thinking may sharpen our interest in the development and alternation of control forms, their external conditions, and their inner dynamics.

Convergence of Control Forms in Modern Societies

In this final section we look at a more recent development taking place in Denmark and – we guess – in other industrialized societies as well: The increasing mix of control forms or the convergence of control forms.

As a first approximation we think the following development may be drawn up: Industrialization created a situation where for each form of control a ‘home ground’ was established where it was the sole form. Bureaucracy dominated in public administration, in the courts and internally in companies. Market regulated buying and selling of goods and services. Democracy was limited to the political system. Collective regulated the family, the local community and partly the work group. Finally, knowledge (dialogue) played only a limited role in a few specialized relationships such as research and educational institutions and daily problem-solving situations.

What is now about to happen, and what in large measure has been under way since the great crisis in the 1930s, is that the coupling of control form and institutional area (sector) is dissolving. All areas are becoming more and more influenced by all control forms. This may be termed a *convergence* or an institutional despecialization of control forms. What the individual control form has lost on its home ground it has gained on ‘away grounds’. Everywhere we find a confused and not well understood mix of control forms. With the expression of Hernes (1978), we have a ‘negotiated economy’ and a ‘mixed administration’. We need such new concepts in order to grasp the emerging muddle with its different contingencies and constraints on the actors.

For private companies engaged in the exchange of goods and services, market is no longer the only (perhaps not even the most dominant) control form. Public authorities have, for various reasons, acted in a regulative capacity. One of the reasons is the failure of the market system. The freedom of action has gradually been limited by extensive sets of authoritative rules.

Similarly, companies are taking on roles in democracy and public debate (collective and knowledge). Recall, for example, the situation prior to the Danish EEC referendum, when many companies acted as 'parties', or the situation of the large chemical factory Cheminova vis-à-vis the Harboøre local authority. Companies must not only look for backing in the market place (sales) but also in political markets (e.g. support from local and national authorities).

Furthermore, we see private companies taking on roles in the production of knowledge or activities formerly regulated through collective in the family (education, child care). And the old-fashioned entrepreneur oriented towards the market is no longer fully qualified to run the company. A business manager must also be an expert on administrative law and practice, and a politician thinking in terms of interests, coalitions and backing.

Parallel changes have taken place in the political system. A certain bureaucratization has occurred, partly through an increased bureaucratization of its institutions (primarily parties and interest groups) and partly through the fact that much political debate is carried out on bureaucratic conditions, that is, turned into interpretation of rules and questions of expertise and knowledge (Habermas 1962).

At the same time the democratic institutions have become marked by the conditions and techniques of the economic market – the use of advertising, opinion polls, professional party organizations (that is, sales and marketing organizations). The old-fashioned type of politician (the public orator and strategist) has had to step aside for a more modern market oriented technocrat type of politician.

Public administration where bureaucracy may be said to be the normal control has increasingly acquired features from the democratic and market place competitive situations. The political or democratic features have made themselves felt because a decreasing number of the very complex questions to be dealt with by the public sector can be clarified at the political level to such a degree that the administration, i.e., the bureaucrats can remain merely administrative. Often the decisions which the political system can make are so broad that the real policy making and fixing of priorities are sent down to the next level, to the bureaucrats. To this must be added that much of the political debate and decision making take place on the basis of memoranda made by the bureaucrats (the experts) who therefore must think 'politically'. The new role in democracy of the bureaucrats has

promoted an interest in 'representative bureaucracy': Do the bureaucrats, considering different social, economic and demographic indicators, 'match' the population?

Similarly, the market form has penetrated the administration: Firstly, because of the existing direct competition between private companies and public institutions in a number of fields (e.g., in production via unemployment relief projects, transportation, education, research and artistic activities). Secondly, because of an increasing internal competition between constituent parts of the public sector – institutions, municipalities, counties and central government bodies – to get hold of good tasks and avoid bad (cumbersome) tasks. Often this competition is very keen and rather unregulated. As examples may serve the inter-ministerial competition to acquire the field of technology assessment, research planning and the education of the 16–19-year-old. Recently the 'modernization programme' of the Danish Government wishes to foster more profit-motivated competitive behaviour in a number of public institutions through a reform of the budgetary system.

A corresponding development has taken place inside the 'bureaucratic pockets' of the market system, viz. the internal organization of large companies. They have to some extent been broken up through divisionalization, formation of profit centres, etc.

The institutions where collective was once the dominant control form – the *family*, the *local community* – has increasingly become regulated by the law (bureaucracy) and by market forces. This is the well known *Gemeinschaft–Gesellschaft* development.

To round off the picture. The *production of knowledge* has become institutionalized and bureaucratized in the form of, for example, research institutes and research management and – at least in the social sciences – not become more independent of public debate, public values or the political democratic control system.

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